## This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

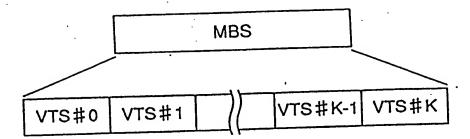
Defects in the images may include (but are not limited to):

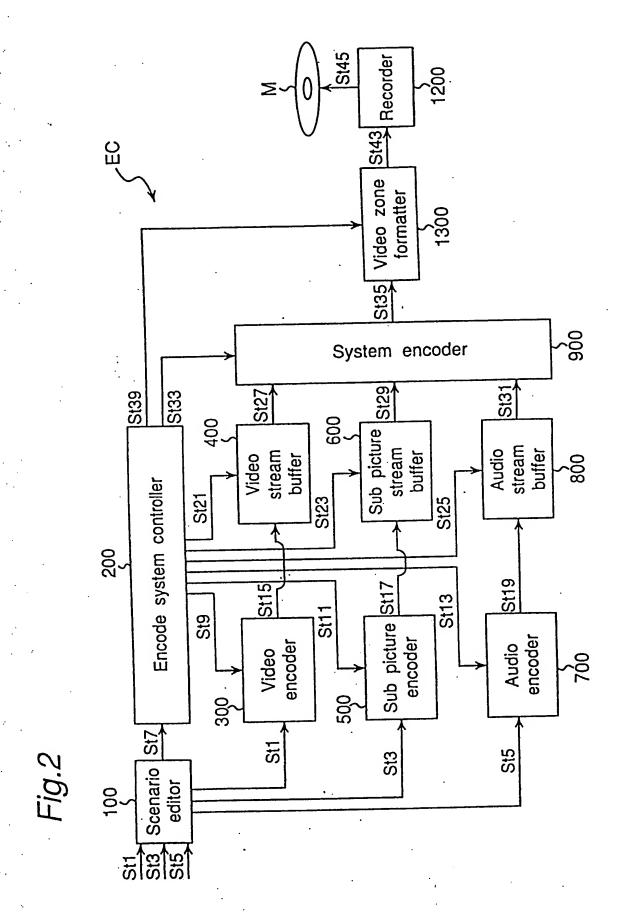
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

Fig.1





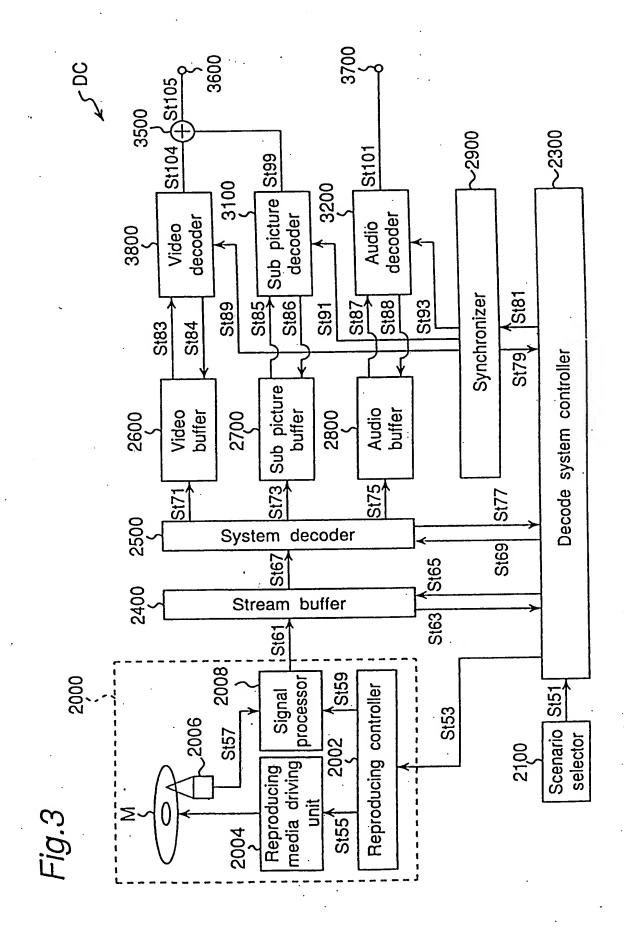


Fig.4

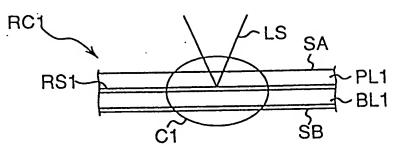


Fig.5

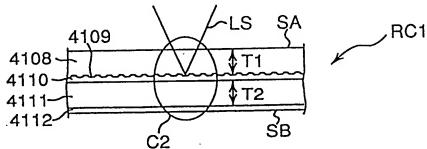


Fig.6

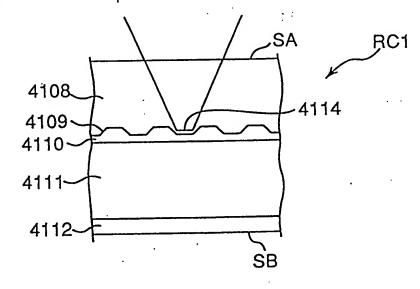


Fig.7

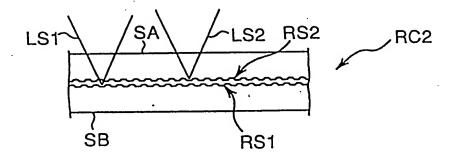


Fig.8

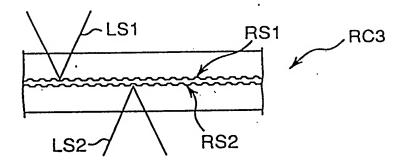


Fig.9

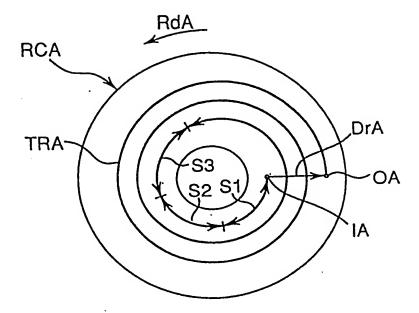


Fig.10

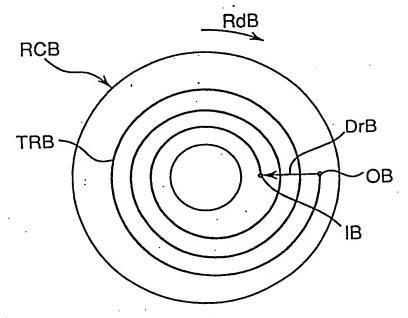


Fig.11

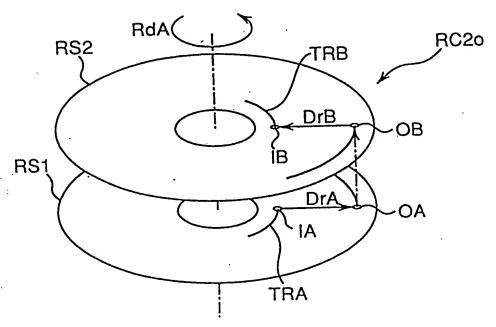


Fig.12

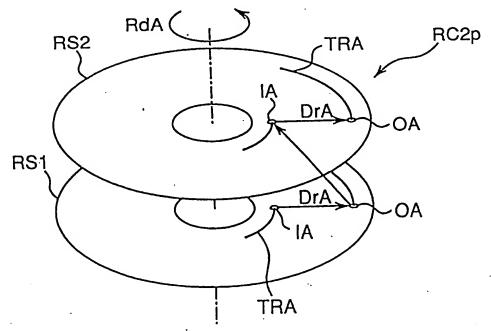


Fig.13

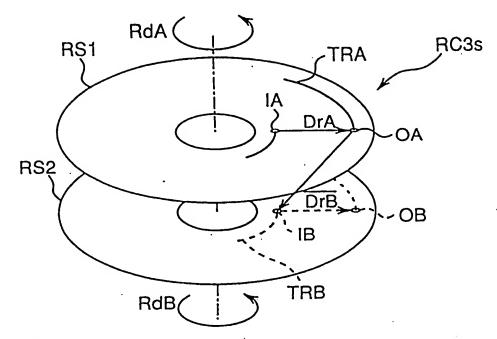
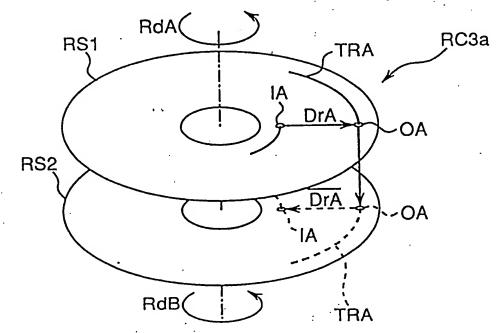
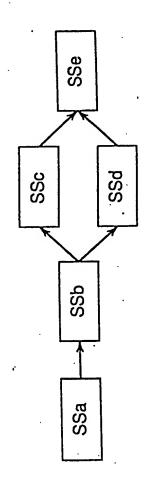
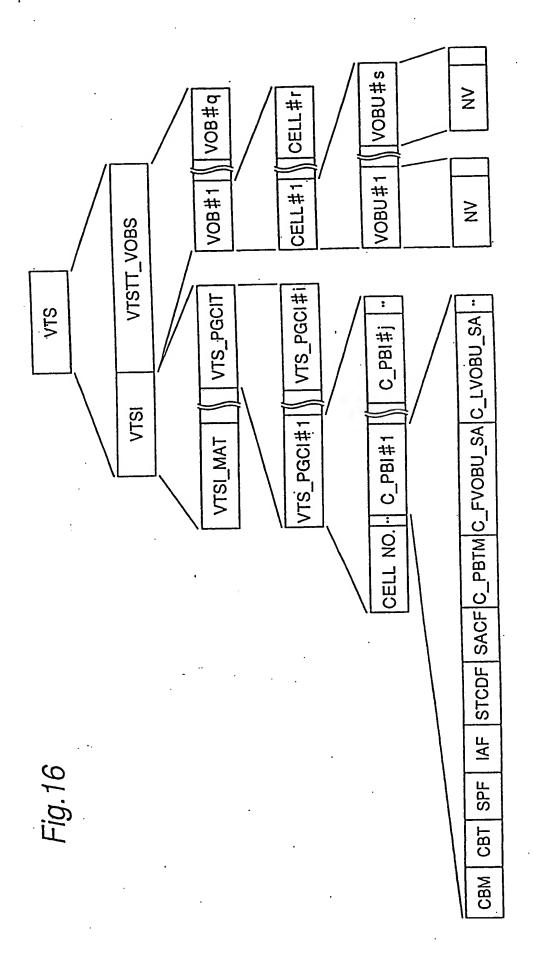
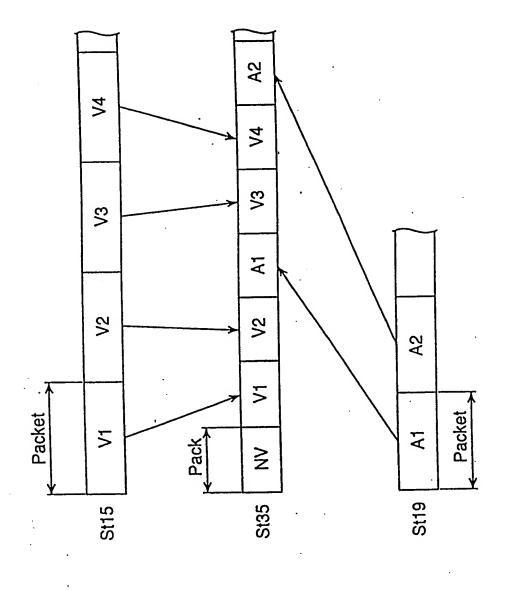


Fig.14









V4 | Aa2 | Ab2 | Ac3 |Spa2| **8** ≥ Act | Spa1 | Spb1 74 <u>ج</u> Ab1 VOBU Spb2 Spa2 Ac2 Aa1 Ab2 Aa2 **V**2 72 Pack Packet Spa1 Spb1 Ac1 Ab1 Aa1 5 5 St17B ≥ St17A St19C St19A St19 St19B St15 St35 St17 {

Fig.19

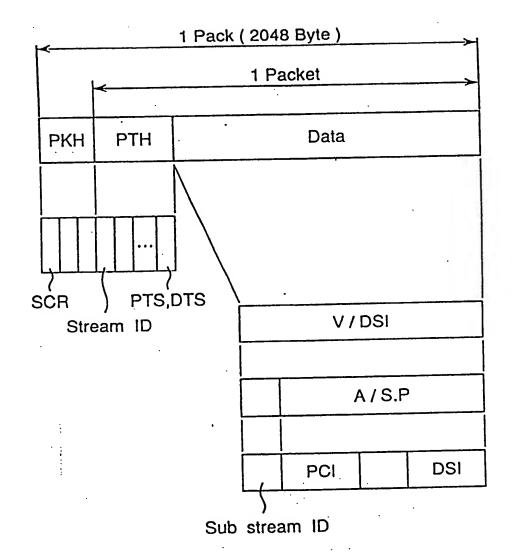
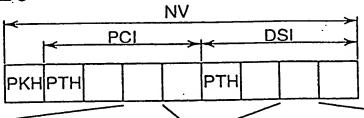


Fig.20



PCI general information (PCI\_GI)

Start PTM of VOBU (VOBU\_S\_PTM)

End PTM of VOBU. (VOBU\_E\_PTM)

Angle information for non-seamless (NSML\_AGLI)

Destination address of angle cell number 1 (NSML\_AGL\_C1\_DSTA)

Destination address of angle cell number 9 (NSML\_AGL\_C9\_DSTA)

DSI general information (DSI\_GI)

End address for VOB (VOBU\_EA)

Seamless playback information (SML PBI)

Interleaved unit flag (ILVU flag)

Unit end flag (Unit END flag)

Interleaved unit end address (ILVU\_EA)

Next interleaved unit end address (NT\_ILVU\_SA)

Audio stop PTM 1 in VOB (VOB\_A\_STP\_PTM1)

Audio gap length 1 in VOB (VOB\_A\_GAP\_LEN1)

Audio stop PTM 2 in VOB (VOB\_A\_STP\_PTM2)

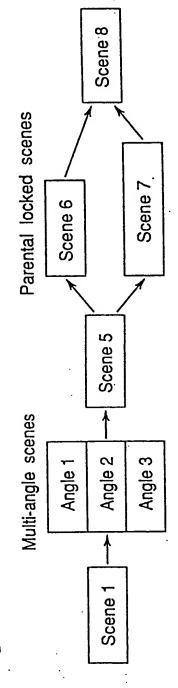
Audio gap length 2 in VOB (VOB\_A\_GAP\_LEN2)

Angle information for seamless (SML\_AGLI)

Destination address of angle cell number 1 (SML\_AGL\_C1\_DSTA)

Destination address of angle cell number 9 (SML\_AGL\_C9\_DSTA)

Fig.21



Scenario 1

Scene 6 Scene 5 Multi-angle scenes Scene 1

Scenario 2

Scene 8 Scene 7 Scene 5 Multi-angle scenes Scene 1 →

Fig.22

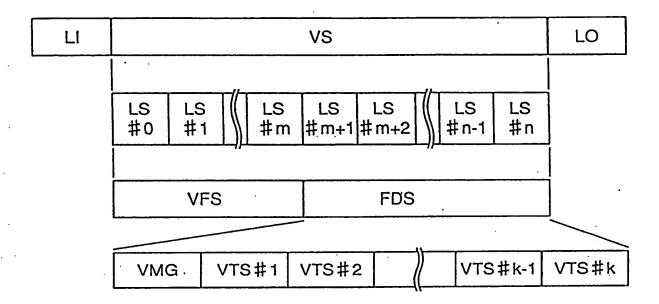
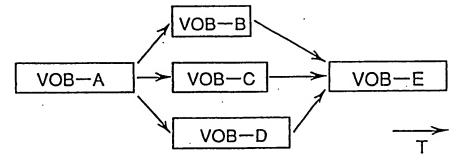
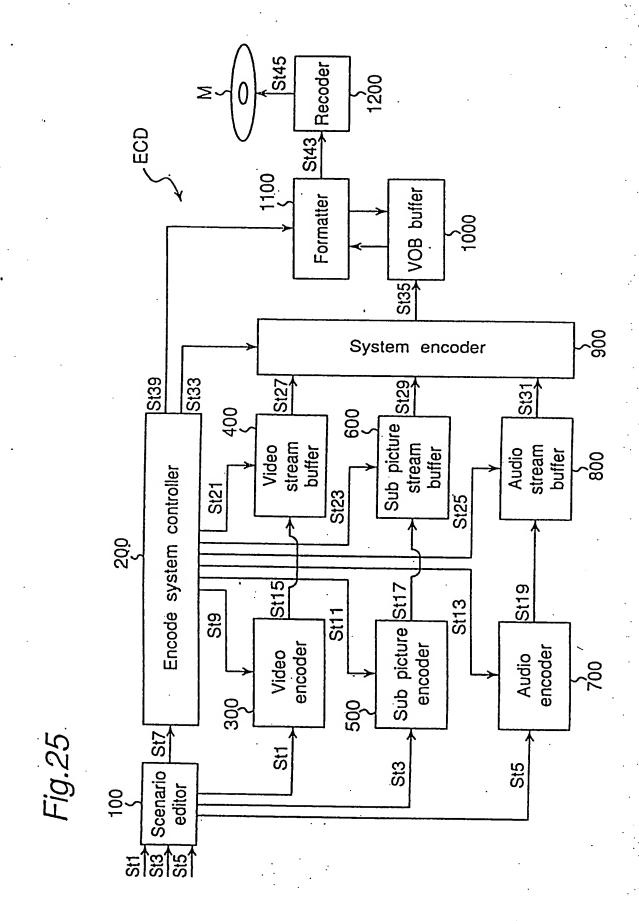


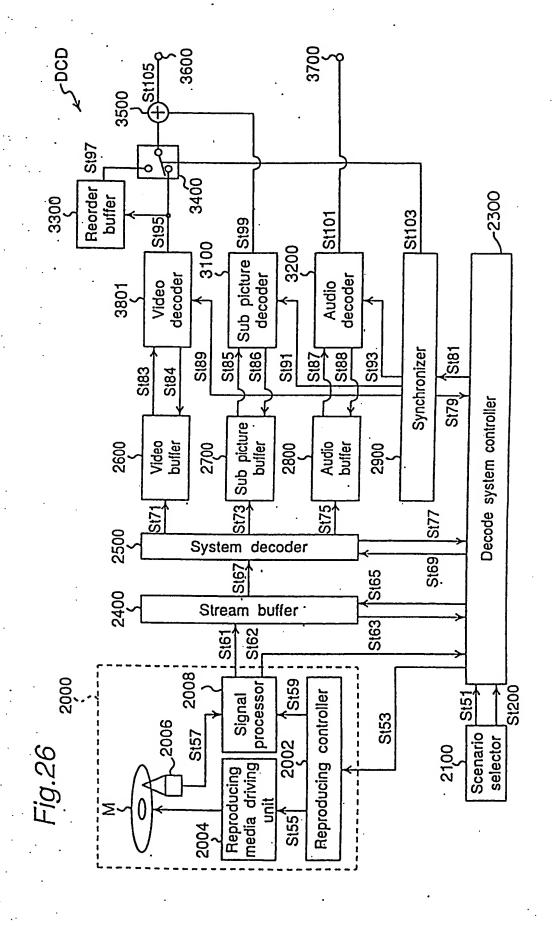
Fig.24



Common angle data BA3 Multi-angle scene period 3rd angle data 2nd angle 1st angle data data **T**2 MA2 MĄ3 MA1 Common angle data

Fig.23





Title number VOB set number (TITLE_NO) (VOBS_NUM)	set #1	VOB set #2	VOB set #st
---------------------------------------------------	--------	------------	-------------

VOB set No. (VOBS\_NO)

VOB No. in VOB set (VOB\_NO)

Preceding VOB seamless connection flag (VOB\_Fsb)

Following VOB seamless connection flag (VOB\_Fsf)

Multi-scene flag (VOB\_Fp)

Interleave flag (VOB\_Fi)

Multi-angle flag (VOB\_Fm)

Multi-angle seamless switching flag (VOB\_FsV)

Maximum bit rate of Interleaved VOB (ILV\_BR)

Number of interleaved VOB division (ILV\_DIV)

Minimum interleaved unit presentation time (ILVU\_MT)

•					
VOB number (VOB_NUM		VOB#1	VOB#2		VOB#v
	Sta	rt time of v	video materia	al (VOB_VST	)
E	End	time of vio	deo material	(VOB_VEND	)) ·
	Ki	nd of video	material (V	OB_V_KIND)	
		Video en	code bit rate	e (V BR)	

End time of audio material (VOB\_AEND)

Kind of audio encode (VOB\_A\_KIND)

Start time of audio material (VOB\_AST)

Audio bit rate (A\_BR)

Fig.29

VOB number (VOB_NO)				
Video encode start time (V_STTM)				
Video encode end time (V_ENDTM)				
Video encode mode (V_ENCMD)				
Video encode bit rate (V_RATE)				
Video encode maximum bit rate (V_MRATE)				
GOP structure fixing flag (GOP_FXflag)				
Video encode GOP structure (GOPST)				
Video encode initial data (V_INST)				
Video encode end data (V_ENDST)				
Audio encode start time (A_STTM)				
Audio encode end time (A_ENDTM)				
Audio encode bit rate (A_RATE)				
AUdio encode method (A_ENCMD)				
Audio start gap (A_STGAP)				
Audio end gap (A_ENDGAP)				
Preceding VOB number (B_VOB_NO)				
Following VOB number (F_VOB_NO)				

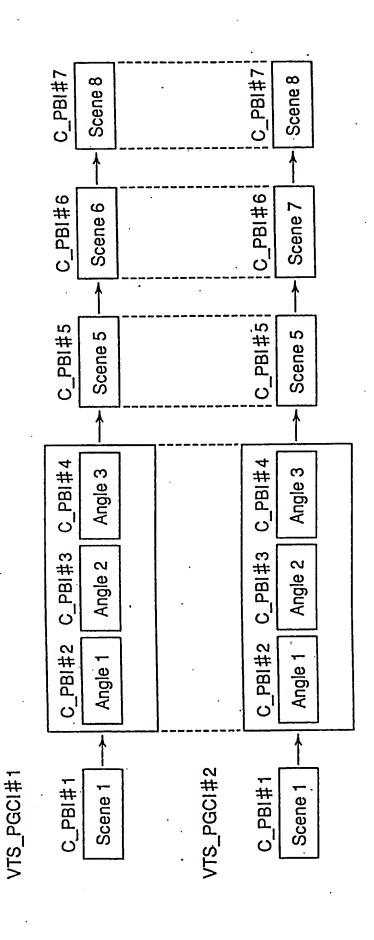


Fig.31

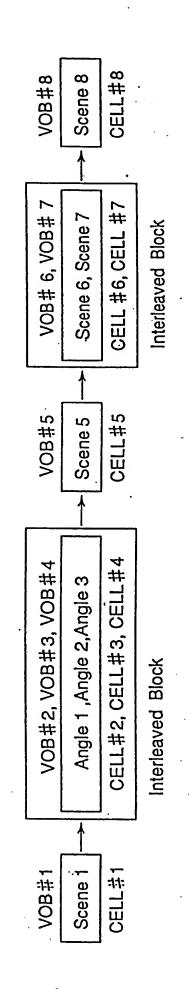
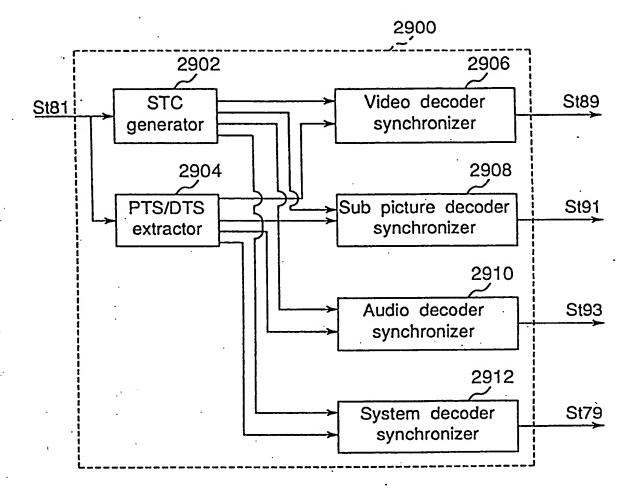


Fig.32



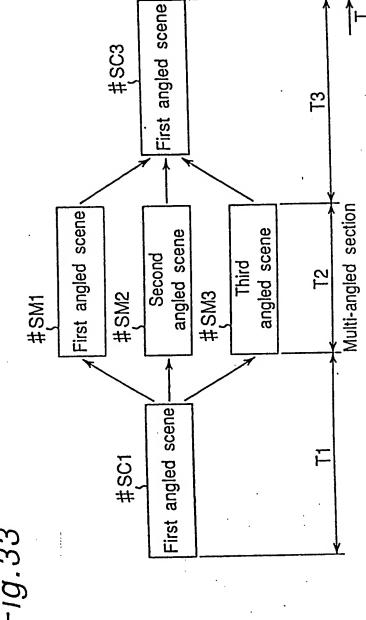


Fig.33

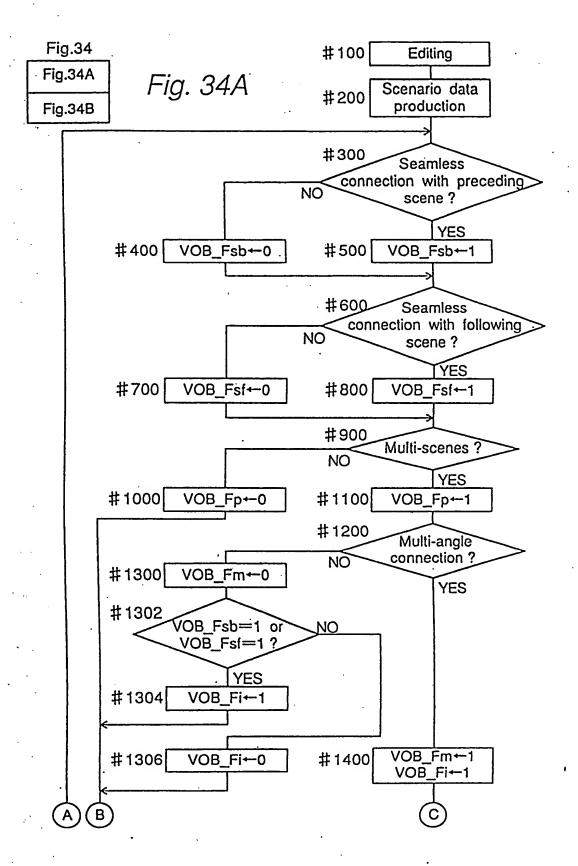


Fig.34B

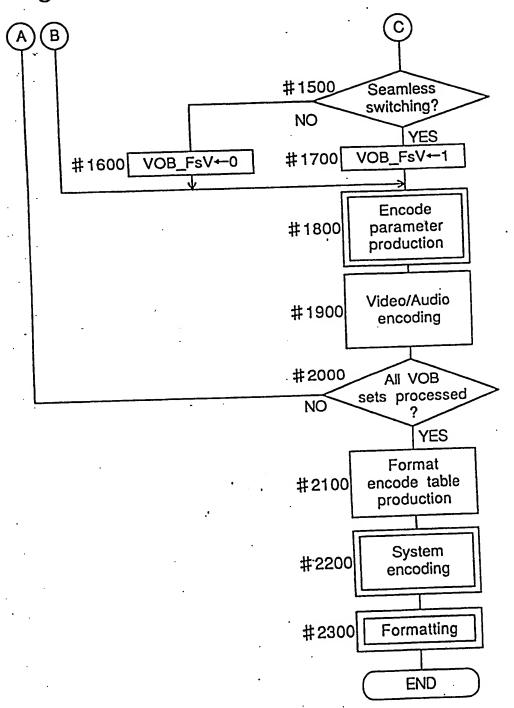
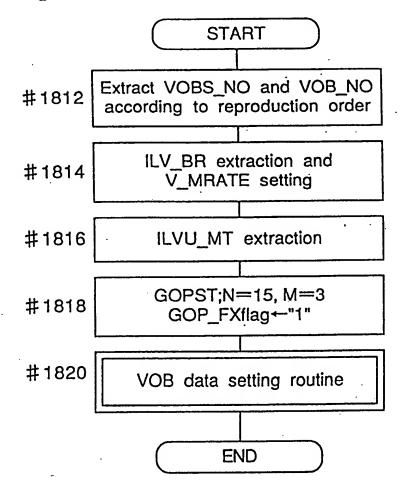


Fig.35



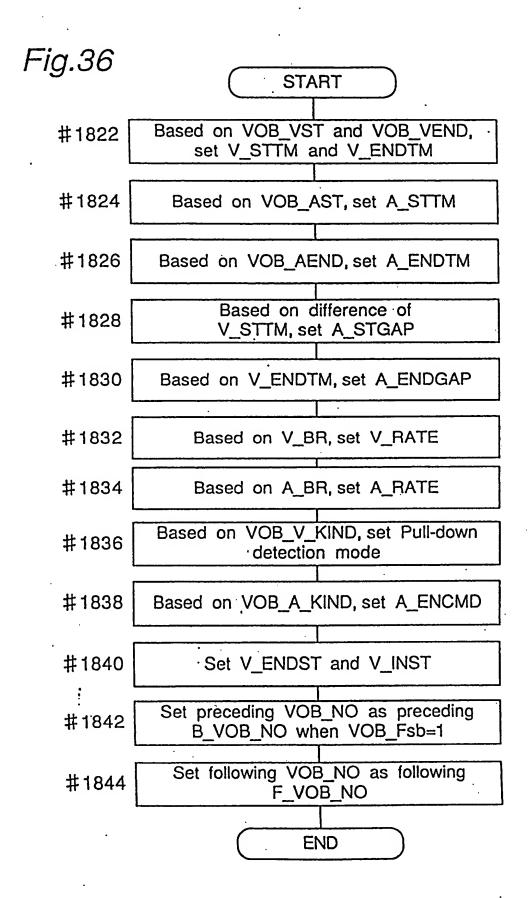


Fig.37

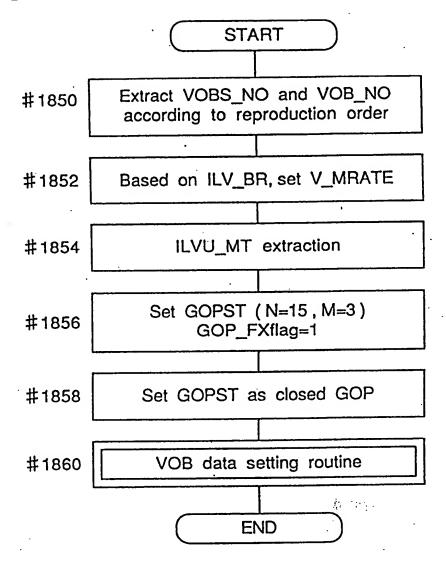


Fig.38

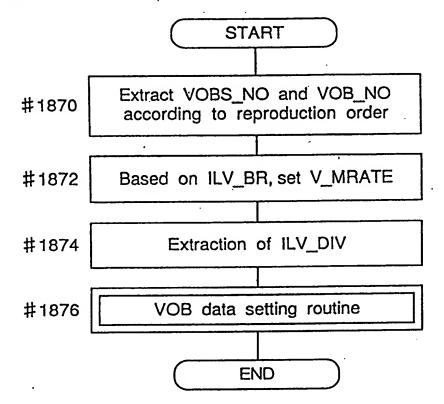


Fig.39

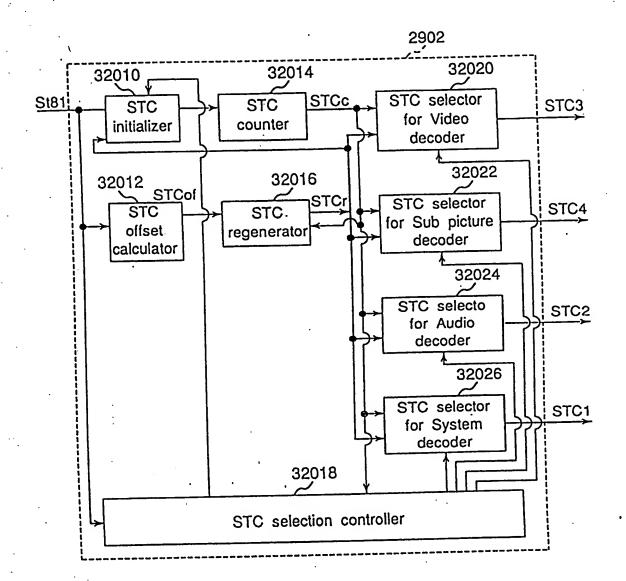


Fig.40A

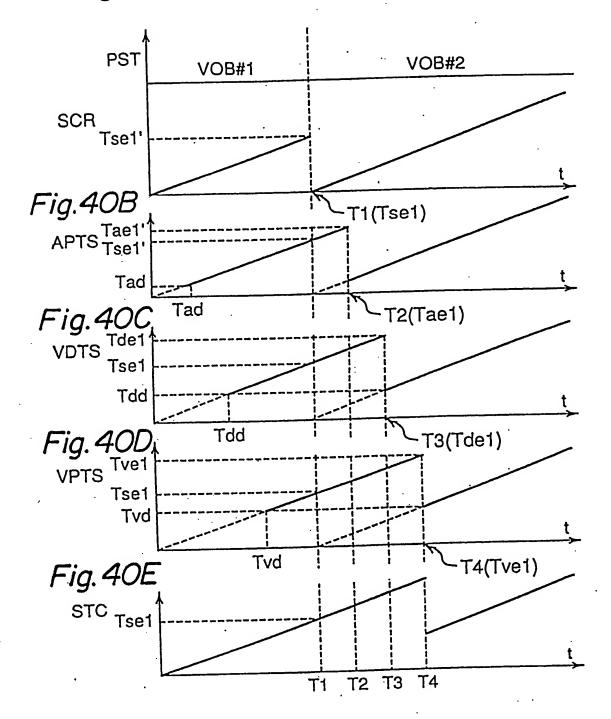


Fig.41

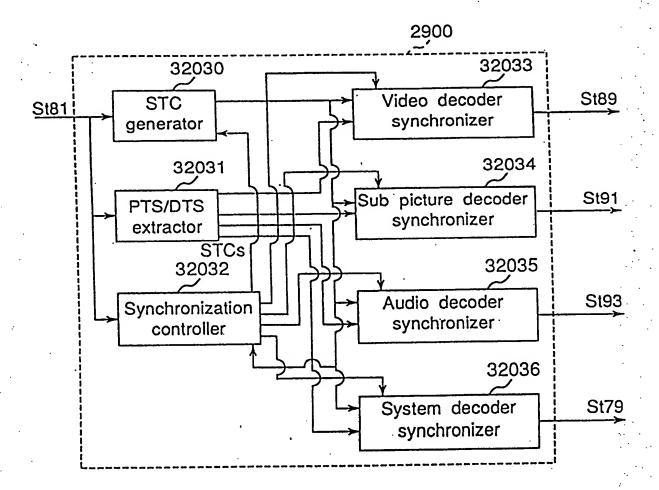


Fig.42

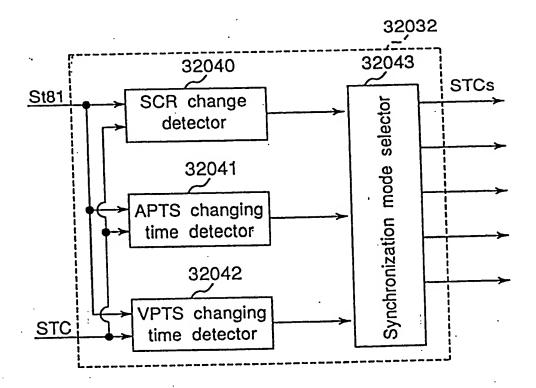


Fig.43

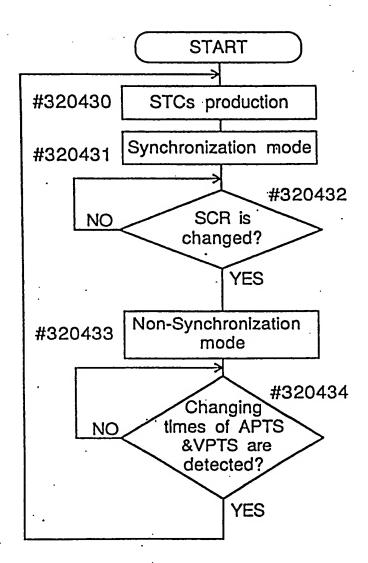


Fig.44A

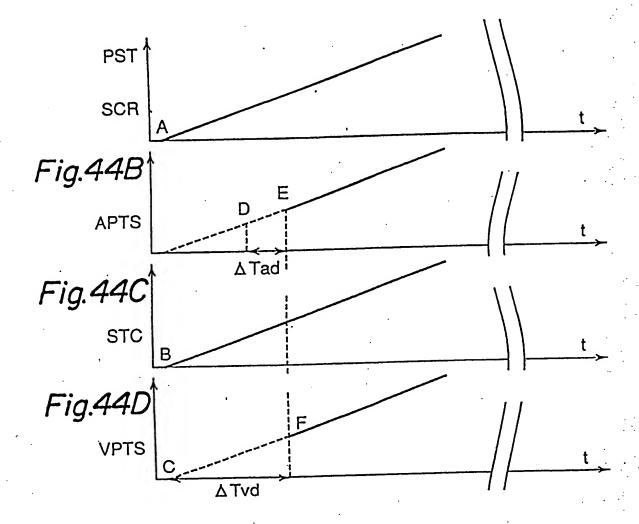


Fig.45A

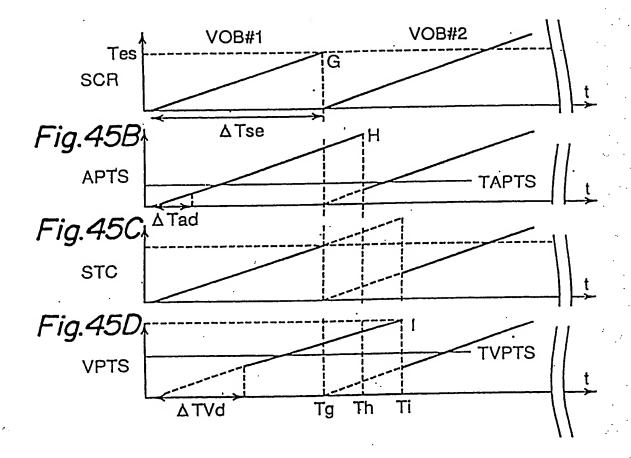
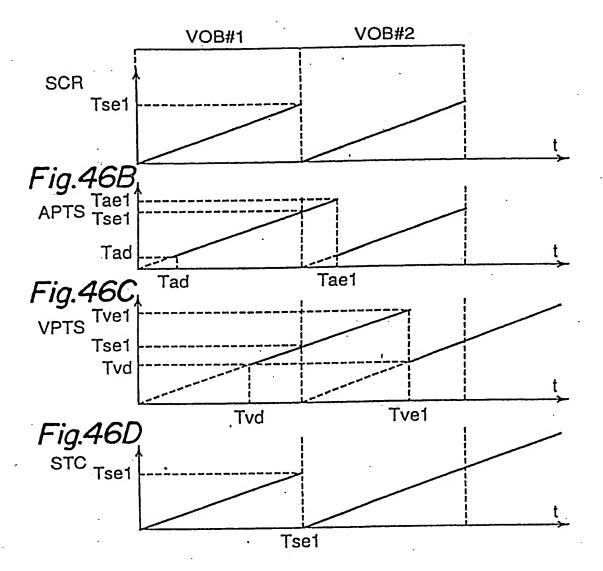
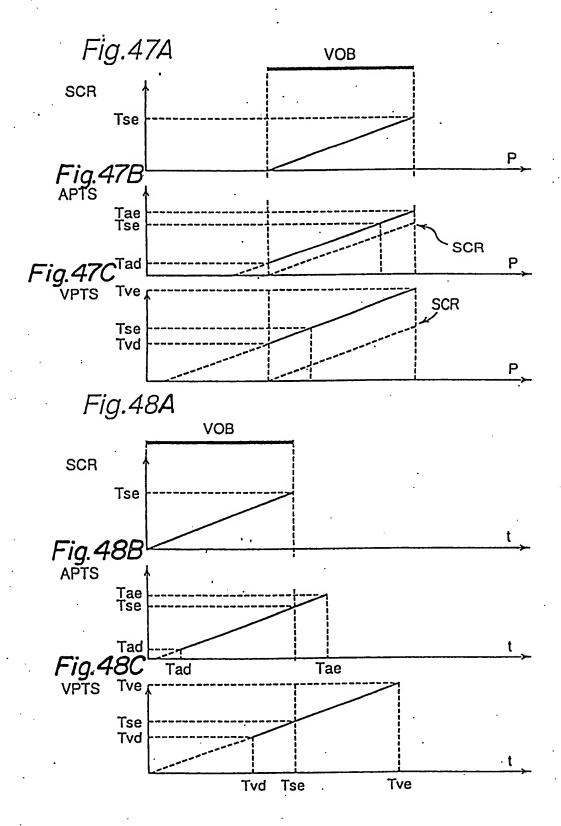


Fig.46A





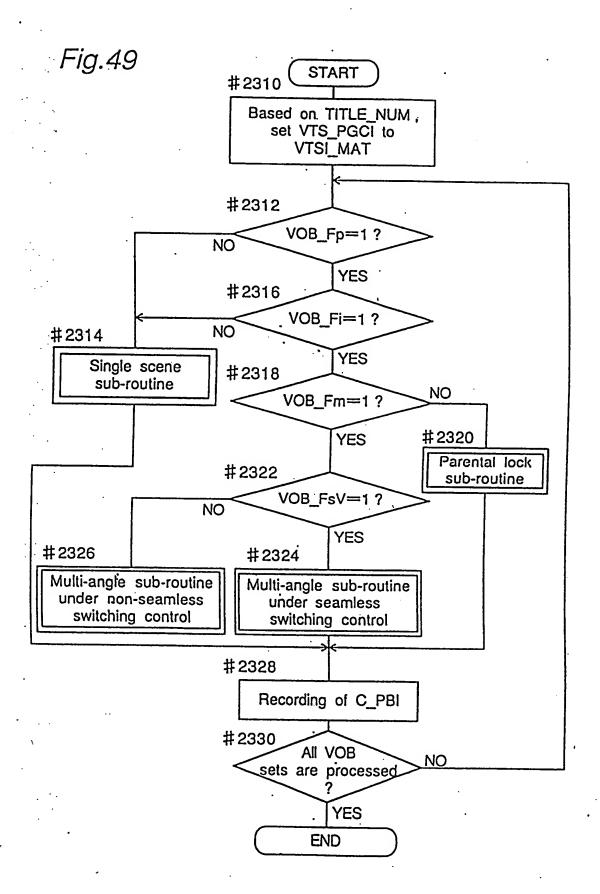
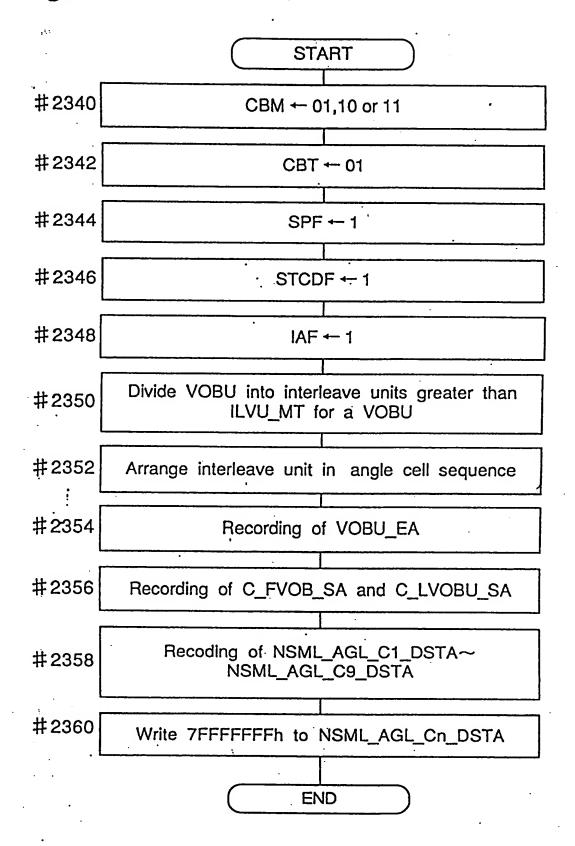
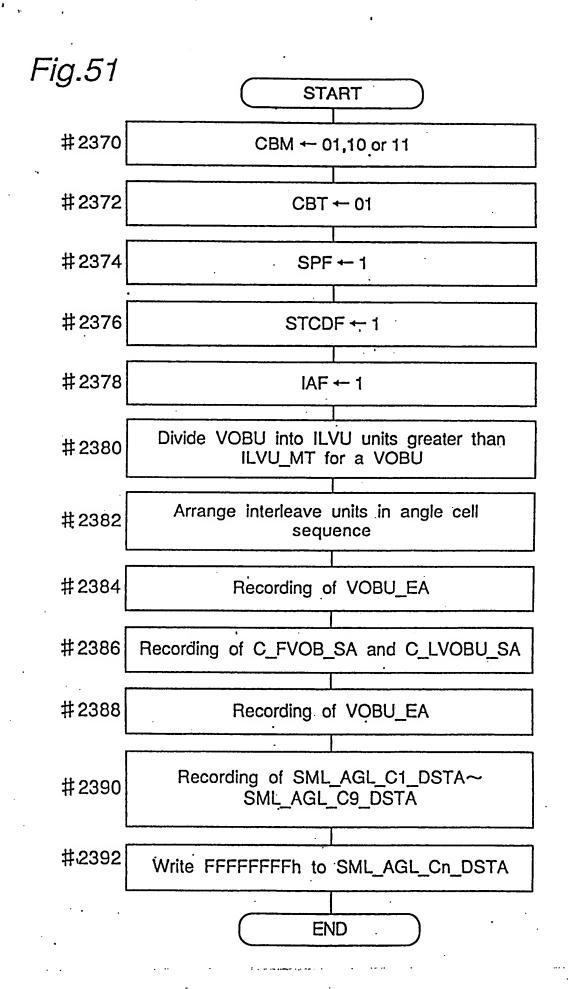


Fig.50





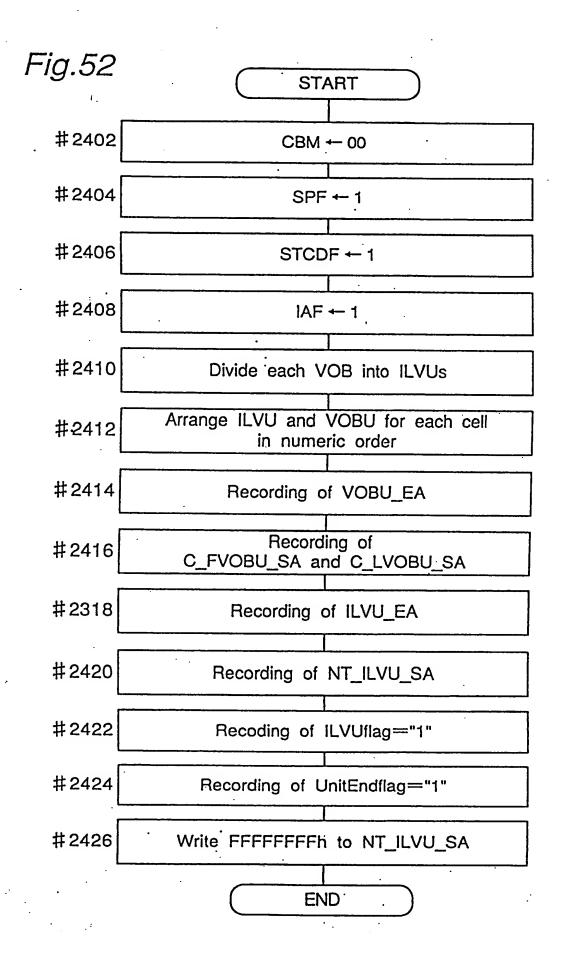


Fig.53

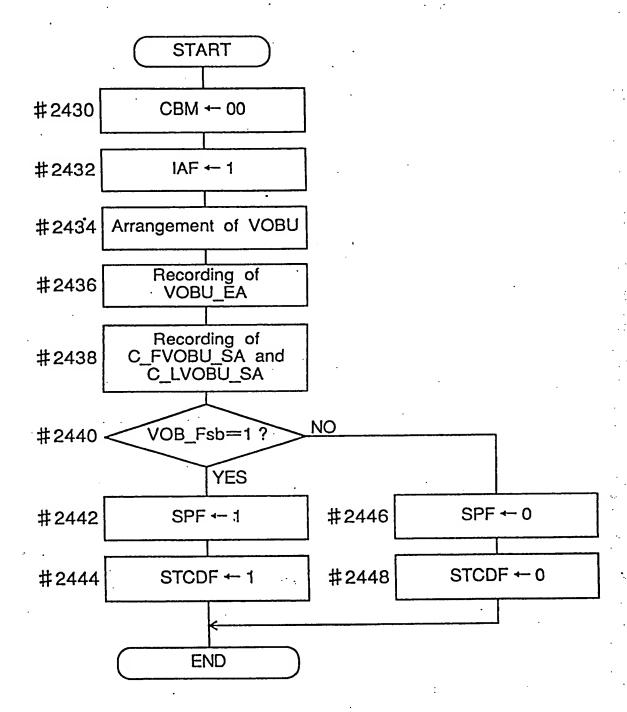


Fig.54	Value	꼬	-	CELL: Last Cell in the block	N BLOCK: Not a part of in the block	A BLOCK: Angle block	SML: A Cell shall be presented seamlessly	NSML: A Cell shall not be presented seamlessly	N ILVB: Exist in the Contiguous block	ILVB: Exist in the Interleaved block	STC NRESET: STC reset is not necessary	STC_RESET: STC reset is necessary	SML: A Cell shall be presented seamlessly	NSML: A Cell shall not be presented seamlessly	U SA reg)	U_SA_reg)
Register Name Solution Parish	Register Name .	e (CBM_reg)	Ce	1	Celiblock type (CBT reg)		Seamless reproduction flag (SPF reg)		Interleave allocation flag (IAF reg)		STC re-setting flag (STCDF reg)		Seamless andle switching flag (SACF_reg)		Starting address of first VOBU in cell (C_FVOBU_SA reg)	1 1

## Fig.55

	Register Name	
ω		
Information registers for Non-seamless multi-angle control	N.A.N.A. 1 (NSML_AGL_C1_	_DSTA_reg)
igis imi ion	N.A.N.A. 2 (NSML AGL C2	DSTA_reg)
sea o	N.A.N.A. 3 (NSML_AGL_C3	
ion Lois Ingle	N.A.N.A. 4 (NSML_AGL_C4	_DSTA_reg)
nformation for Non-se multi-angle	N.A.N.A. 5 (NSML AGL C5	
forr roll	N.A.N.A. 6 (NSML AGL C6	
Info	N.A.N.A. 7 (NSML_AGL_C7	DSTA_reg)
	N.A.N.A. 8 (NSML_AGL_C8	_DSTA_reg)
<del></del>	N.A.N.A. 9 (NSML_AGL_C9	_DSTA_reg)
	Register Name	
ers ol	S.A.S.A. 1 (SML_AGL_C1_D	STA_reg)
register lless control	S.A.S.A. 2 (SML_AGL_C2_D	STA_reg)
tion regis seamless ngle con	S.A.S.A. 3 (SML_AGL_C3_D	STA_reg)
nformation for sean multi-angle	S.A.S.A. 4 (SML_AGL_C4_D	STA_reg)
atic se an	S.A.S.A. 5 (SML_AGL_C5_D	STA_reg)
for JHi-	S.A.S.A. 6 (SML_AGL_C6_D	
Information registers for seamless multi-angle control	S.A.S.A. 7 (SML_AGL_C7_D	STA_reg)
	S.A.S.A. 8 (SML_AGL_C8_D	STA_reg)
	S.A.S.A. 9 (SML_AGL_C9_D	STA_reg)
VOBU info.	Register Name	
Register	VOBU final address (VOBU	EA_reg)
	Register Name	Value
	Interleave unit flag	ILVU: VOBU is in ILVU
SS	(ILVU_flag_reg)	N_ILVU: VOBU is not in ILVU
esa	Unit end flag	END: At the end of ILVU
arr n	(UNIT_END_flag_reg)	N_END: Not at the end of ILVU
se	Final pack address of ILVU	(ILVU EA reg)
for	Starting address of next ILV	U (NT ILVU SA reg)
Registers for seamle reproduction	I. V. F. P. S. T. (VOB_V_SPT)	// reg)
ste	F. V. F. P. T. T. (VOB V EPT)	M reg)
iĝ	Audio reproduction stopping	time 1 (VOB_A_STP_PTM1_reg)
č	Audio reproduction stopping	time 2 (VOB_A_STP_PTM2_reg).
	Audio reproduction stopping	period 1 (VOB_A_GAP_LEN1_reg)
	Audio reproduction stopping	period 2 (VOB_A_GAP_LEN2_reg)
·		Parison I Con LEINE 169)

Fig. 56

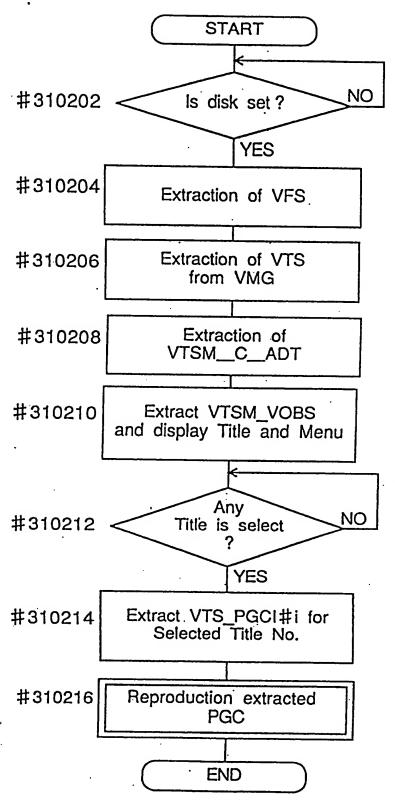
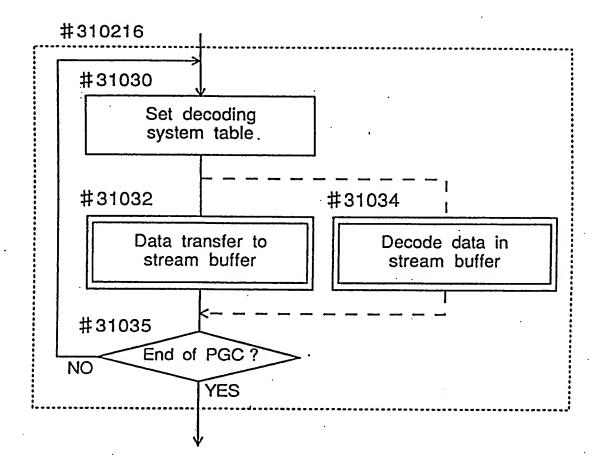


Fig.57



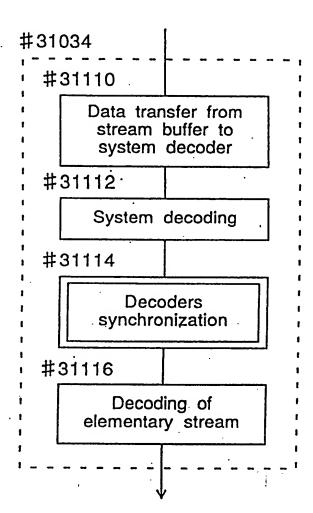


Fig.59

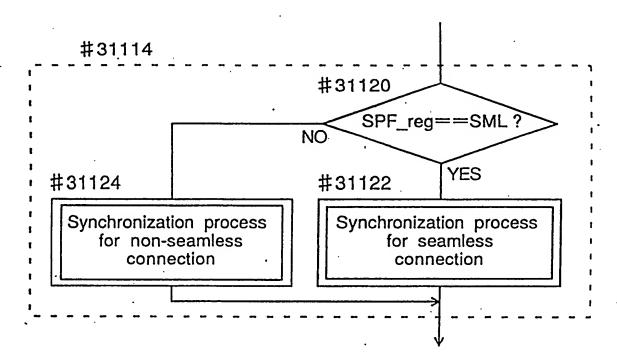
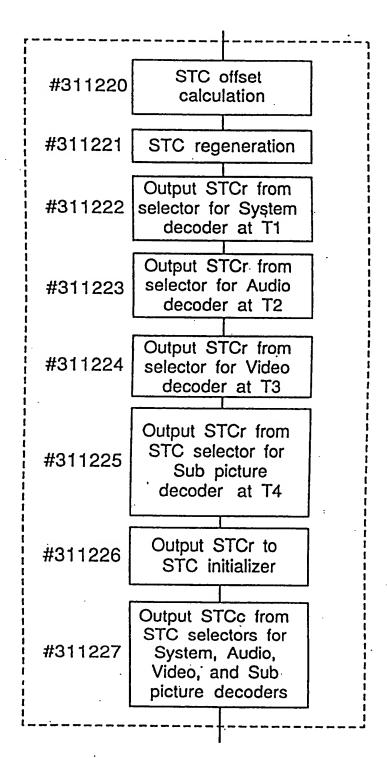


Fig.60

#31124 Output STCc to STC selectors for System, Audio, Video, and Sub picture decoders



angle decoding process Non-seamless multi-#31048 2 Seamless multi-angle decoding process SACF\_flag\_reg=SML YES #31042 #31046 YES CBT\_reg=A\_BLOCK? Non multi-angle decoding process 9 #31040 #31044 #31032

Fig.62

Fig.63

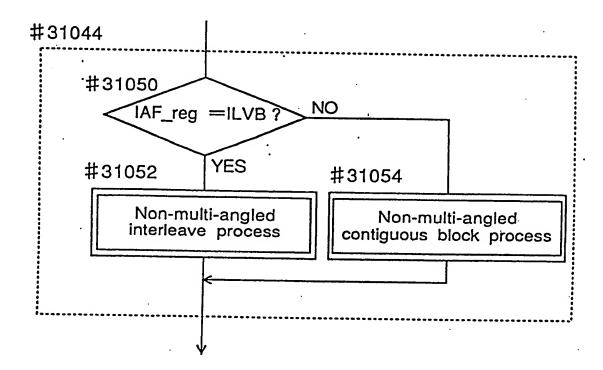
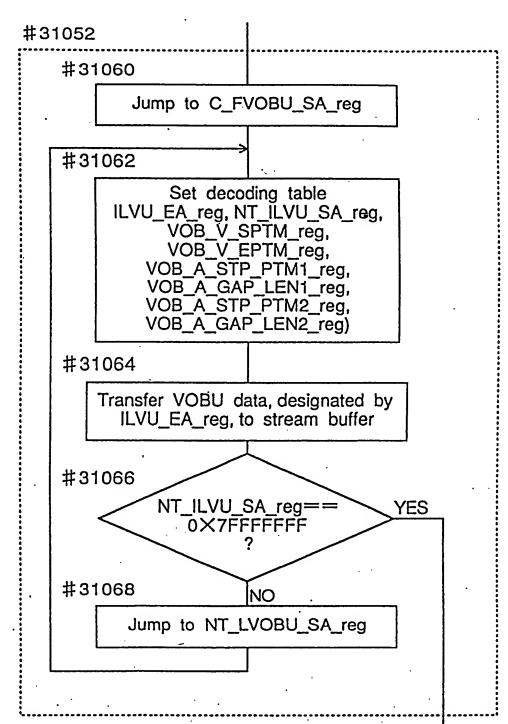
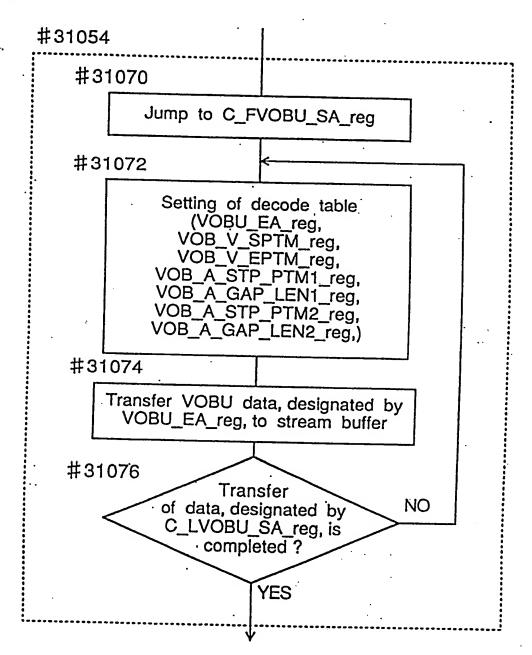


Fig.64



*Fig.65* 



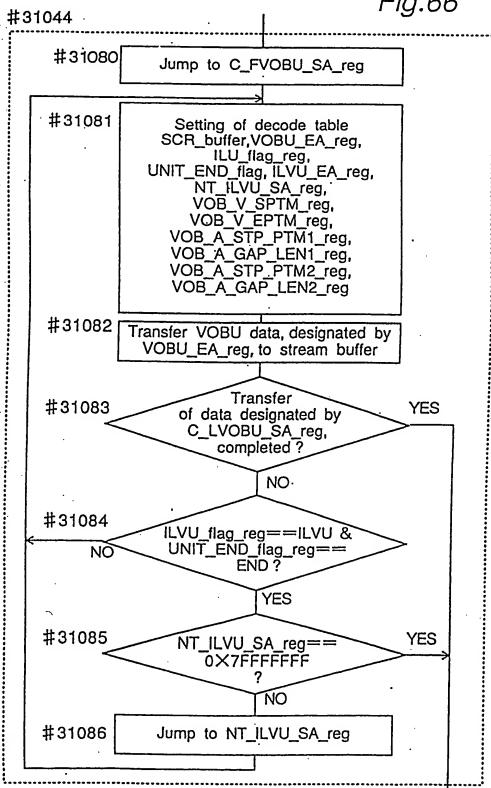
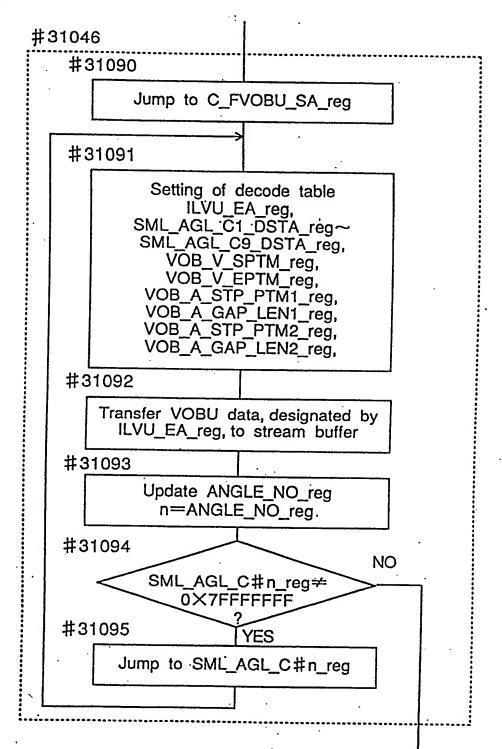


Fig.67



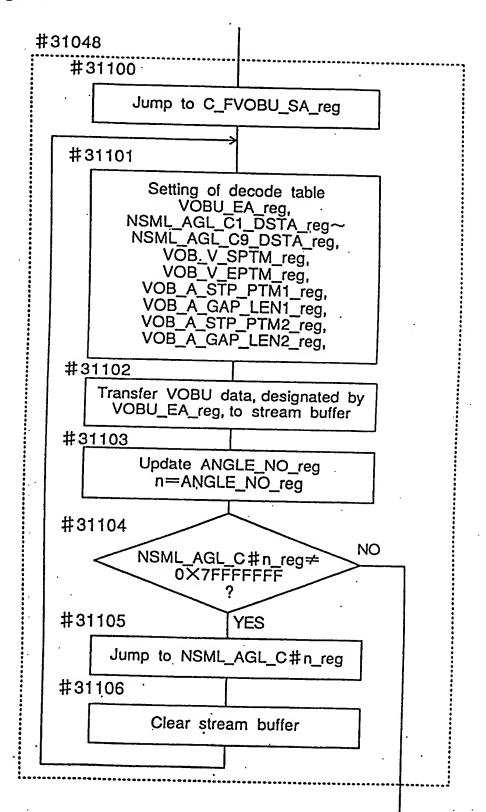


Fig.69

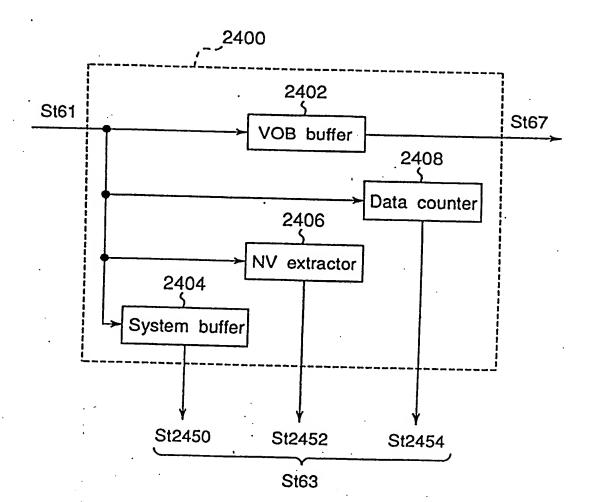


Fig.70

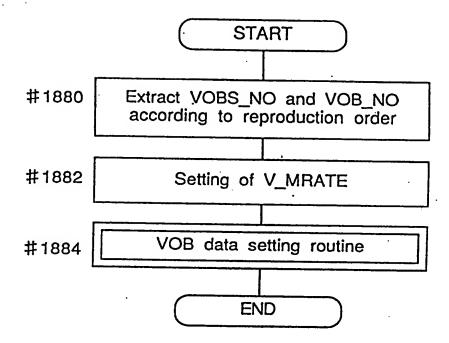


Fig.71

Continuous block region		Interleaved block region	Interleav reg			block region
						Continuous
VOB-E	VOB-D2	VOB-C1 VOB-D1 VOB-B2 VOB-C2 VOB-D2	רט-אטע	יספטי	NOD-DI	Id-dOV A-DOV

Fig.72

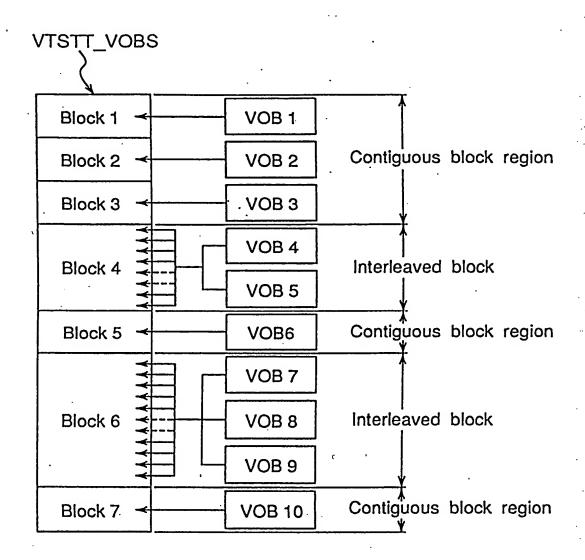


Fig. 73

